Technical Information Report for

Convenience Store

Project:

Convenience Store 125 North Morton Street Franklin, Indiana 46131 Engineer:

Hamilton Designs, LLC 11988 Fishers Crossing Drive, Suite 154 Fishers, Indiana 46038 p. 317-750-6466

Professional Certification:

September 14, 2016



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1.0 Drainage Narrative:

1.1 Introduction

This narrative describes the proposed improvements for the Convenience Store and the impact to the drainage system pre- and post-construction. The project is located at the northeast corner of the Morton Street and Madison Street intersection. The project has a given address of 125 North Morton Street, Franklin, Indiana 46131.

The proposed improvements include the expansion of the current building and canopy, an additional gas pump, and a small reconfiguration of the parking.

1.2 Zoning Status

The site is currently zoned as MXC, Mixed Use Community Center.

2.0 Water Quantity:

The existing site is a fully developed site. The project limits contain green space in landscape islands and around the perimeter of the property. The entire property sheet drains to the east toward the existing storm sewer.

The proposed improvements include the expansion of the current building and canopy, an additional gas pump, and a small reconfiguration of the parking. The proposed grading will perpetuate the same drainage patterns and will drain to the existing storm system.

The Composite "C" values were calculated for the existing and proposed conditions. Due to the limited improvements to the site and amount of impervious area removed, the Composite "C" value for the proposed condition is lower than the Composite "C" value for the existing condition.

Due to the decrease in impervious area, runoff rates will not be impacted, therefore, water quantity improvements are not addressed in this report.

3.0 Water Quality:

Due to the limited land disturbance area, water quality improvements are not addressed in this report.

4.0 Summary:

In summary, this report establishes the proposed project will negligibly impact the water quantity and quality. Due to the existing facilities and proposed improvements no adverse impacts are anticipate.

5.0 Appendix:

HAMILTON DESIGNS | 1

A. Site Maps

HAMILTON DESIGNS | A-i



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons



Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

A Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Spoil Area

Stony Spot

Nery Stony Spot

Wet Spot

∆ Other

Special Line Features

Water Features

Streams and Canals

Transportation

→ Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

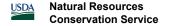
This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Johnson County, Indiana Survey Area Data: Version 23, Sep 9, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 17, 2011—Mar 10, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Map Unit Legend

Johnson County, Indiana (IN081)							
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI				
CrA	Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes	0.5	100.0%				
Totals for Area of Interest		0.5	100.0%				

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Sillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0° North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwarter Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwarter Elevations table should be used for Elevations shown in the Summary of Stillwarter Elevations table should be used for the state of construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertnent floodway data are provided in the Flood Insurance Study report for this jurisdictor for this jurisdictor for this jurisdictor for this jurisdictor.

Certain areas not in Special Flood Hazard Areas may be protected by **flood** control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this interdiction.

this jurisolction. The projection used in the preparation of this map was Indiana State Plane East zone 3826 (FIPSZONE 1301). The horizontal datum was NAD33. Differences in datum spheroid, projection or state plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

These differences do not affect the accuracy of this FIRM. Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services NOAA, N/NGS12 National Geodetic Survey National Geodetic SSMC-3, #9202

1315 East-West Highway Silver Spring, Maryland 20910-3282 (301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.noaa.gov/.

Base Map information shown on this FIRM was derived from the Johnson County Computer Services from photography dated 2001 and from USGS digital orthophoto quadrangles dated 1998 or later.

This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

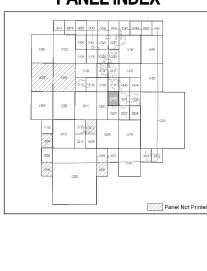
Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

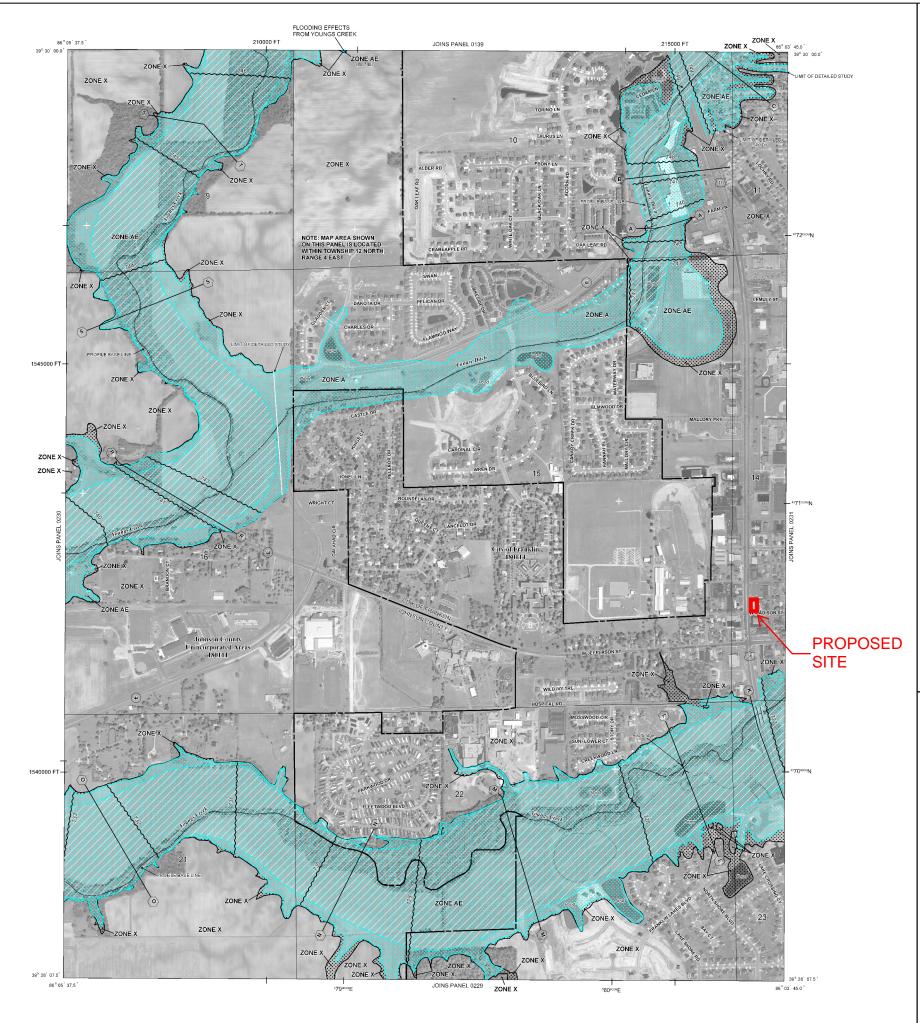
Contact the FEMA Map Service Center at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change. a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov/.

If you have **questions about this map** or questions concerning the Nationa Flood Insurance Program in general, please call **1-877-EMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip/.

The **profile base lines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile base line**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

PANEL INDEX





LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

annual chance flood (100 year flood), also known as the base flood, is the flood a 1% chance of being equaled or exceeded in any given year. The Sporard Area is the area subject to flooding by the 1% annual chance flood. Areas Flood Hazard may include Zones A, AE, AH, AD, AB, AS9, V, and VF. The Base evolution is the water-surface elevation of the 1% annual chance flood.

No Base Flood Florations determined

Base Flood Elevations determined.

ZONE A

ZONE AH

ZONE AR

Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE A99

Coastal flood zone with velocity hazard (wave-action); no Base Flood Elevations determined. ZONE V

Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined

FLOODWAY AREAS IN ZONE AE

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X

ZONE X Areas determined to be outside of the 0.2% annual chance floodplain ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary 0.2% annual chance floodplain boundary Floodway Boundary

CBRS and OPA boundary

Boundary Dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities. ---- 513---

Base Flood Elevation value where uniform within zone elevation in feet* (EL 10)

Referenced to the North A rican Vertical Datum of 1988

Cross section line n - - - - - - - - (n) Transect line

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere 85" 03' 45.0", 41" 24' 22.5"

4587000 M 5000-foot grid ticks: Indiana State Plane East Coordinate System, 3826 zone (FIPSZONE 1301) Transverse Mercator 2250000 FT

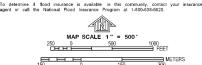
Bench mark (see explanation in Notes to Users section of this FIRM panel) KA0015 × • M1.5

MAP REPOSITORY

Refer to listing of Map Repositories on Map Index EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP August 2, 2007

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to county-wide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.



PROGR

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PANEL 0227D

FIRM FLOOD INSURANCE RATE MAP JOHNSON COUNTY, INDIANA

AND INCORPORATED AREAS

PANEL 227 OF 352

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY FRANKLIN, CITY UF

NUMBER PANEL SUFFIX 180114 UZ2/ 180111 0227

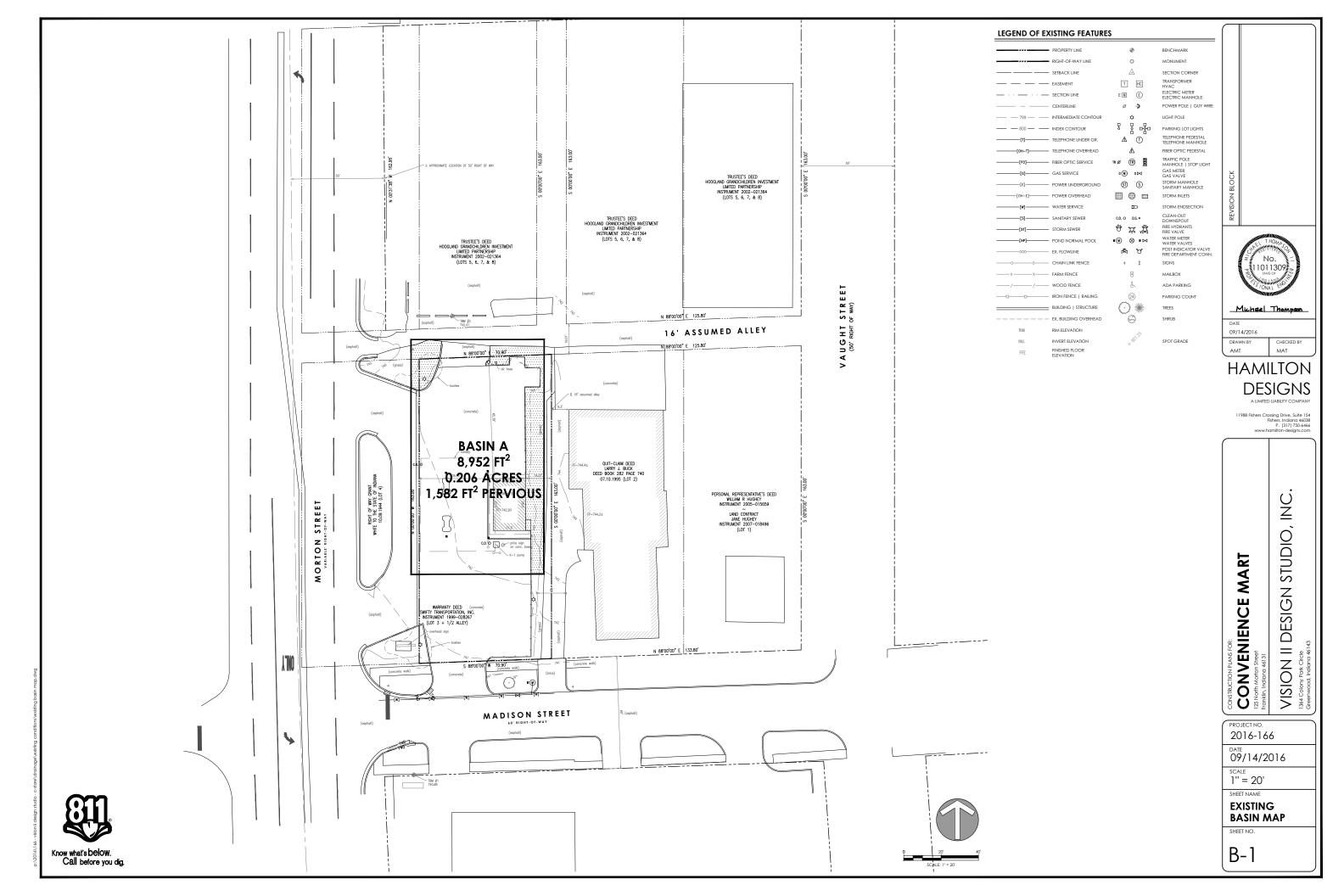


MAP NUMBER 18081C0227D EFFECTIVE DATE AUGUST 2, 2007

Federal Emergency Management Agency

B. Existing Conditions

HAMILTON DESIGNS | B-i



HAMILTON DESIGNS

Hamilton Designs Project No.: 2016-166

Project Name: Convenience Store By: AMT

Description: Composite C Computation Date 9/14/2016

Existing Conditions

Rational Method runoff coefficients

 All watertight roof surfaces
 0.90

 Pavement
 0.90

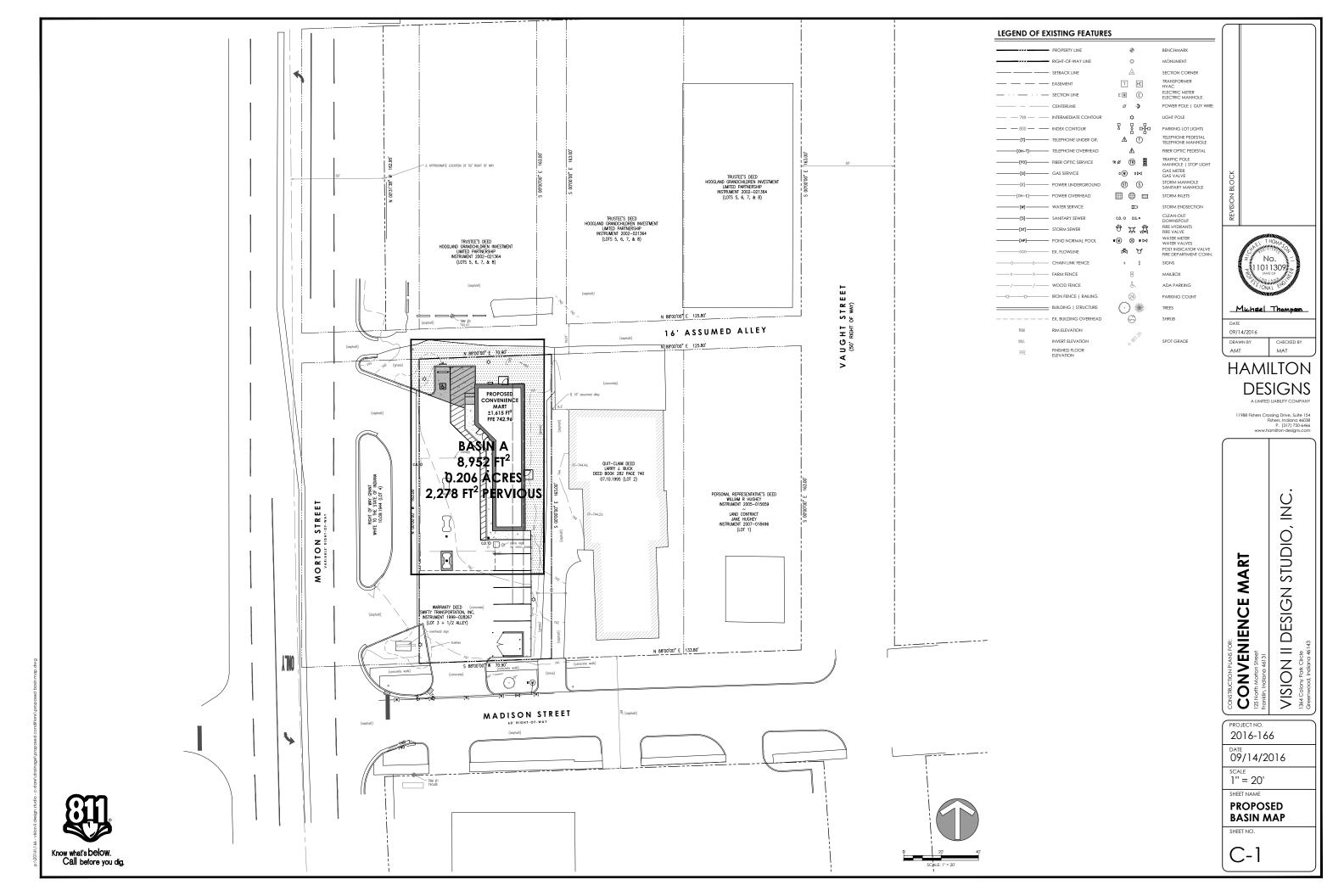
 Gravel
 0.85

 Slightly perivous soil (with turf)
 0.20

BASIN A	All watertight surfaces	Pavement	Gravel	Pervious soil / turf	Total	Total	Composite C
	(ft ²)	(ft ²)	(ft ²)	(ft ²)	(ft ²)	(acres)	(ft ²)
	481	6,889	0	1,582	8,952	0.206	0.78

C. Proposed Conditions

HAMILTON DESIGNS | C-i



HAMILTON DESIGNS

Hamilton Designs Project No.: 2016-166

Project Name: Convenience Store By: AMT

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Proposed Conditions

Rational Method runoff coefficients

 All watertight roof surfaces
 0.90

 Pavement
 0.90

 Gravel
 0.85

 Slightly perivous soil (with turf)
 0.20

	All watertight			Pervious soil /			
BASIN A	surfaces	Pavement	Gravel	turf	Total	Total	Composite C
DASIN A	(ft ²)	(acres)	(ft ²)				
	1,615	5,059	0	2,278	8,952	0.206	0.72